

E A N H S BULLETIN



70th ANNIVERSARY YEAR

CONTENTS

70 Years. A History	126
Congratulatory letters to the Society	133
The Mating Decent Flight of Alate Termites	135
Unusual Aggregations of Fish Eagles	136
Breeding of Immature White-necked Cormorants on Boadzulu Island, Lake Malawi	136
The Forest Vegetation at the Hotel Baobab, Ukunda	137
Society Lecture Notes	138
<u>Delosperma oehleri</u> : an interesting rediscovery	139
For Sale	139
Society Notes	140
New Members	141
Society Functions	142



The Successful Years

1951 proved a quiet year. Finances were at a low ebb but still the Journal was produced, the editor trying to make it acceptable to the world of science, yet popular with the less scientifically minded members. Dr T.R. Odhiambo joined the Society in 1952. This was the beginning of a long association and he later became a life member. Professor Odhiambo now heads the International Centre for Insect Physiology and Ecology and is the Chairman of the Board of Museum Trustees.

Several cover designs for the Journal from 1953 to 1956 were beautifully drawn by Dr P.R.O. Bally and Journal No. 96 was given over entirely to 'The Cowries of the East African Coasts' by B. Vercourt. A paper of this nature was greatly needed as important monographs on the subject were rare or out of print. All species of cowries known to occur on the coast were included.

The Pan-African Congress of Ornithology was held in Livingstone in 1957 and brought many transit overseas visitors to the Society. Mr Roger Tory Peterson, well known author and illustrator, amongst many others, of the 'Field Guide to the Birds of Britain and Europe', gave a talk on various curiosities of bird life. A walk was held at Athi with Mr Cohen of the British Trust for Ornithology in attendance. Talks and film shows were given in member's homes. This entailed much less work and anxiety for the committee and proved very popular.

In 1954 a number of Black-headed Herons appeared at the stores yard near Nairobi Railway Station and began to breed in a clump of tall Eucalyptus trees. The Society decided in 1958 that this was suitable for a detailed study, which continued, under the guidance of Myles E.W. North, until 1962 and was fully written up by him in Journal No 106. This contained over a dozen very good photographs of the birds. To study the herons at nest level an observation tower at least 80 feet high was required. Railway engineers constructed a firm tower which they allowed the Society to use for 15 months, and full advantage was taken of this. Much photographic help was given by Mr John Karmali, the Society's present chairman. Mr and Mrs Armand Denis, who's wildlife films are world renowned, and Mr Des Bartlett, also a famous wildlife photographer, made generous financial contributions to the cost of this study. The Railway's drawing office were also very helpful in producing maps and histograms.

This was not the only project of the Society in 1958. Plans were in hand for a large scale ringing of migratory birds, while wildlife conservation and the formation of a sanctuary at Lake Nakuru were closely watched.

January 1959 saw the publication of Journal No. 100 produced under the editorship of Mrs M. Aldridge. This contained a congratulatory letter from Sir Evelyn Baring for the Society's 50th anniversary. Myles E.W. North wrote an appreciation in which he stated that this was surely a great achievement, since funds for the publication of the Journal depended almost entirely on subscriptions from members.

During 1959 Dr Leslie Brown gave an excellent film show and described to members his investigation of flamingo colonies in East Africa. One has only to read his book 'The Mystery of the Flamingoes' to realize the vast amount of work devoted to this subject. It was also in 1959 that the Society recorded with deep regret the death of Mr Hugh Copley C.B.E. An active member for 30 years, he played a notable part in keeping the Society going. He was an expert on marine life in Africa and contributed regularly to the Journal.

The Museum Trustees were aware of the increasing value of the comprehensive library housed at the Museum and were in favour of a joint management committee representing both the Society and the Museum to supervise the running of the library. By July 1959 the librarian was employed under the control of the Museum Trustees and the Society's bookbinder was transferred to the museum staff. Miss Ossent, a long standing member of the committee, who had carried out much valuable work as honorary librarian was appointed as the Society's representative on this management committee.

The Society, ever keen to widen its horizon, took part in a game census in the Nairobi National Park during 1960. This was arranged by Mr S. Ellis, the game warden. Counts were held every month for several years and much valuable data was secured.

Rings and mist nets were purchased by the Society in 1960 and the bird ringing scheme came into being. Miss Judy Blencowe, a member of the committee undertook the work involved and a sub-committee was formed. This scheme was greatly needed as the work done in the earlier part of the century by Sir Frederick Jackson and later by Dr van Someren, were still the only source of reference on migrant birds.

The Society was very pleased to issue Dr R.H. Carcasson's work, 'The Swallowtail Butterflies of East Africa' as a special supplement No. 6 in 1960. This work is still available to members and is of interest to amateur and professional entomologists. This was followed by further monographs on East African butterflies which Dr Carcasson offered to the Society.

At this time Mrs Jean Hayes was elected to the Society and is now the editor of the Journal. Many members do not realise the vast amount of work involved and undertaken voluntarily, in the

editing and production of the Journal. One has only to study the publication to realize the many hours which must be spent on this and the Society are truly thankful to the excellent editors who have helped so much over the past 70 years.

In 1961 the name of the Journal was changed, an agreement being reached with the Museum Trustees and the Society for the production of the joint Journal to be entitled 'The Journal of the East Africa Natural History Society and the Coryndon Museum'.

A survey of the plants of Nairobi National Park was proposed in 1961. Lt. Col. Mervyn Cowie offered every assistance and special permission was granted for collecting within the Park. Some 400 species were collected and handed to the East African Herbarium for identification. Mrs Heriz-Smith, a talented member of the Society, wrote a guide book to the wild flowers of the park. This was sold at the Museum as well as in leading bookshops and was very popular. Profits from this went to the Society and its appreciation was shown by electing Mrs Heriz-Smith as a Life Member.

Lake Natron, the favourite breeding ground of flamingos was flooded in 1962 and tens of thousands of these birds made their nests at Lake Magadi, a few kilometres away. Magadi contains an excessively high concentration of soda which forms a brittle, thick crust on the water. Great concern was felt when it was reported that the flamingo chicks were dying there; the formation of lumps of soda around their ankles making it impossible for them to walk or fly. A rescue operation started on 21st September and continued until the middle of October, teams from the army, air force and many others working under the direction of Alan Root and his wife Joan. The success of the operation was great, an estimated 30,000 birds were released from their soda shakles and up to 100,000 more driven from the soda pans to deeper water at the south end of the lake. During this time 8,000 Lesser Flamingos and 80 Greater Flamingos were ringed under the Society's scheme, the rings being obtained from the British Museum (Natural History). The money needed for this operation was raised by the E.A. Wild Life Society and other sources. No praise is too high for the people who worked on this task in burning soda with a sub-crust temperature of over 140°F under the blazing sun.

Dr Vernon D. van Someren M.B.E., B.Sc., Ph.D., died on 28th March 1962. He was a keen and talented naturalist whose spare time was spent watching and photographing birds. His study of the birds of Madagascar was a noteworthy contribution to the knowledge of the species of that island. His book 'A Birdwatcher in Kenya' is delightful and informative and much appreciated by bird watchers. For many years Vernon was a member of the Society's executive committee and a trustee of the Coryndon Museum.

1963 saw the Society still flourishing with its Journal

becoming more and more a leading scientific publication. Journal No. 106 of January 1963 contained 'The Cyperaceae of East Africa' Part 1 by D.M. Napper. This important work was completed in several Journals and a few complete sets are still available. This Journal also contained 'The Milkweed Butterflies of East Africa' by R.H. Carcasson and 'Breeding of the Black-headed Heron at Nairobi 1958 - 1962' by Myles North.

Journal No. 107 was also published in 1963 and contained 'Distribution of some Large Mammals in Kenya' by D.R.M. and J. Stewaet and 'Key and Checklist of Kenya Orchids' by Copley, Tweedie and Carrol.

The Society members, led by Dr Andrew Agnew, carried out a successful plant mapping scheme in the Ngong Hills area in 1964 and this was continued into 1965. In 1964 Mr John Kokwaro joined the Society as a junior member; Professor Kokwaro of the Botany Department, University of Nairobi is now the able Vice Chairman of the Society.

1965 saw the start of bird counts held at Lake Naivasha, in thornbush country, on the plains and in forests. These activities demonstrated clearly how the amateur naturalist can play an important part in scientific investigation. Also deserving mention was a fungi hunting trip, led by Drs Otieno, Ingold and Grindling, three top fungi experts, when 70 different species were found.

Miss Fleur Grandjouan, now Mrs Ng'weno became the Society's Hon. Secretary in 1963. Her work for the good of the Society has been invaluable and perhaps she is best known to present members for her most popular Wednesday morning bird walks. Rain or shine she is outside the Museum ready to lead newcomers and experts to places of interest. Records of birds seen have been kept by Miss P. Allen and now by Miss C. Muringo of the Bird Room, National Museum.

At the A.G.M. held in March 1966 the president of the Society thanked Dr Greenway and Mr and Mrs Carcasson for the high standard they had achieved as editors of the Journal and for making sure that it reached the many local and overseas members.

The Society worked for the preservation of critical habitats; smaller areas, without important large mammals, but just as vital from an ecological standpoint as the National Parks. It was pleasing to report that this had been taken up by the (then) Ministry of Natural Resources and Wildlife. Mr Perez Olindo, Deputy Director of Kenya National Parks and a member of the Society's committee, stated at a meeting in 1966 that he felt the establishment of Marine National Parks in Kenya was a matter of great urgency and he hoped to raise funds for this. These parks have now been established to preserve marine life along the Kenya coast.

From October 1966 to April 1967 over 3,900 birds were ringed and Mr John Smart, the ringing organizer, then handed over to Mr Graeme Backhurst the chairmanship of the Ornithological Sub-Committee. Mr Smart was leaving Kenya and had helped the Society in many ways. Mr Backhurst has continued the excellent work of the bird ringing scheme.

January 1967 saw Part 1 of 'Marine Botany of the Kenya Coast' by Wm. E. Isaac, published in Journal No 114. This work was completed in Journal parts and is still available in the Society's office. Journal No. 115 was entirely taken up with Dr Carcasson's 'The Revised Catalogue of the African Sphingidae (Lepidoptera)'. This contains many plates and runs for 148 pages.

In August 1967 Mrs Rena Fennessey, famous for her bird paintings, book illustrations and designs of several series of East African stamps, donated to the Society a very attractive sketch of a Long-crested Hawk-eagle for the cover of an information leaflet. This has been the Society's emblem ever since.

Myles North died on 24th November 1967 at the age of 59. The Society lost a most prominent and active member. While members remember him for his leadership of rambles and his lectures, the wider world of naturalists remember him for his outstanding work on the bird song recordings. He produced two records in association with the Laboratory of Ornithology at Cornell University. He is remembered with the deepest affection by his many friends in the Society. A memorial fund was raised in his honour and was used for publishing outstanding ornithological works.

1968 saw changes within the Society. More members were needed and more willing workers required to maintain and advance the standards it has set itself. Mrs Ng'weno resigned as Secretary and Miss Jean Angwin, a zoology student at the University, took over her work. The Society had no office and was run from the committee members homes. When Mr Carcasson left for Canada he was succeeded as entomologist by Mr Michael Clifton. Mr Clifton soon joined the Society and became a very active member. His 'dudu crawls' are a favourite function with many members, and his willingness to help younger members as well as adults in matters of natural history is well known. Mr J.S. Karmali, who had once again become a member of the Executive Committee in 1966, became the President of the Society in March 1969, a position which he still holds.

The nest record scheme was started in 1961 with Mrs Hazel Britton undertaking the work involved. Cards were printed for this and members were urged to record as much information as possible on breeding birds.

Over the years many delays were experienced in the publication of the Journal; lack of suitable copy, lack of paper and often delays on the part of the printers, to mention a few causes. During 1970

an enlarged newsletter was sent quarterly to members to compensate for this. Miss Priscilla Allen was once again the Hon. Secretary, assisted by Miss B. Debenham and they cheerfully took on the extra work. Journal No. 119 in 1970 contained many interesting papers; it was the last to be issued in that format. Once again the name was changed to its present title 'The Journal of the East Africa Natural History Society and National Museum'. In order to have scientific work published and distributed to members more rapidly the Society published No 120 as a separate single paper on Fresh-water Prawns by Baily and Crichton, instead of a collection of papers bound into one Journal. This policy continues and many important works have been made available in this way. The lesser scientific observations, nature notes, book reviews and Society notes were published in the Bulletin. This was in a duplicated form and Mr and Mrs Backhurst put many hours of work into making it a success.

The Society was pleased to publish in 1974 Journal 149 'A Guide to the Snakes of the Tanzania and Kenya Borderlands' by D. Vesey-FitzGerald. The author, an entomologist and all round naturalist, who had worked on pest control in many parts of the world, died at the age of 64 in May of that year.

1975 brought many worries and inflation hit the Society in no uncertain manner. Amongst others the increase in postage was quite staggering being from 100% to 200%. The Bulletin had to be reduced to six copies a year but larger issues were promised.

Several changes came about in 1976. Dr Greenway, editor of the Journal and associated with the Society for many years resigned and Mrs Jean Hayes took over as Hon. Editor. Mr Backhurst resigned as editor of the Bulletin and his place was filled by Mr Clifton. Miss Allen resigned as Secretary but continued as a member of the committee and Museum Librarian. Miss Dennie Angwin became Hon. Secretary and Treasurer. At last the Society had an office to work from, Mr Richard Leakey, the Director of the National Museum, kindly allowed the Society the use of a room near the Library. No time was lost in moving in and the voluntary staff now try to keep this open for the benefit of members during normal office hours.

Mrs Britton continued with the valuable work of the nest record scheme and many members were supplying valuable data of their observations. An analysis of the breeding seasons of East African birds by Dr L. Brown and Mr Peter Britton was well advanced and one can only guess at the many hours which have already been spent upon it.

The Ornithological Sub-Committee of the Society felt there was a need for a purely East African ornithological publication and this was accepted by the Executive Committee in October 1976. Produced quarterly, together with an annual bird report, Scopus has proved very popular. The first issue was published in 1977 and the publication is available to members for an annual fee of Shs. 50/-.

Membership of the Society increased in 1977 both locally and overseas and in 1978 this trend continued.

A bird census was carried out in the Nairobi area by members in December 1978 and an analysis published in the Bulletin in 1979. A further census will take place this year and the Society hope to make this a yearly feature.

The Society's 70th Anniversary year has proved to be an active one, membership has already reached a record number. To date there are 65 overseas life members, 3 Junior overseas members, 62 full overseas members, 32 overseas institutional members and 200 overseas exchanges. In addition the local membership stands at 40 life, 580 full, 34 junior and 20 institutional. Three Journal parts have been published and issued to members together with the Bulletin. The Society, thanks to Don Turner, together with Air Madagascar and Madagascar Air Tours, were able to offer members three trips to Madagascar. This was very popular and was quickly over subscribed.

At the National Museum's 50th Anniversary Festival held in June 1979 the Society was able to put on a fine display of its activities and this was much admired and helped to increase membership. Many congratulatory letters have been received from leading scientific bodies all over the world and the Society feel justly proud of them.

The authors, Leslie Brown and Peter Britton, as well as the editor, have pushed ahead with the 'Breeding Seasons of East African Birds'. This very important work is now with the printers and will be available shortly to members, in book form, at a reduced price.

The Society is also pleased to announce the publication in the near future of a much needed handbook 'The Birds of East Africa' by Peter Britton.

The publications of 70 years are a tangible proof of the East Africa Natural History Society's success, which has been made possible by the hard work of its office bearers over the years and the support of its members. A complete set of publications is held in the Library at the National Museum and a list of available reprints for sale is sent to members at regular intervals. Some members are regarded as 'old faithfuls', having joined the Society in its formative years. At the other end of the ladder are those who join for short periods while working within East Africa.

1979 had truly been a wonderful anniversary year. A time to look back proudly on past achievements and to look forward to the future.

A complete list of Office Bearers will be published in the January/February 1980 Bulletin.

E.B.A.

CONGRATULATORY LETTERS TO THE SOCIETY

Monsieur le Président,

A l'occasion du 70e anniversaire de la fondation de votre société, je suis de vous présenter au nom des zoologistes de notre Musée, tous nos félicitations.

Nous espérons que l'avenir de votre société ne démentira pas son passé glorieux et ses contributions importantes à la connaissance de la fauna de l'Est africain.

Outre son rôle scientifique proprement dit, votre société a joué également un rôle éducatif non négligeable. Elle a contribué à mieux connaître, à mieux apprécier les animaux et leur biologie. Elle a contribué à faire respecter ceux qui partagent avec l'homme l'espace vital du globe terrestre.

Que ce message d'appréciation du rôle important que vous avez joué dans le passé, puisse pour vous constituer un encouragement, afin de persévérer dans l'avenir.

Veuillez agréer, Monsieur le Président, l'assurance de ma considération distinguée.

P.L.G. Benoit, Le Chef du Département de Zoologie ff,
Koninklijk Museum voor Midden-Africa - Musée Royal de l'Afrique
Centrale, Tervuren, Belgium.

Dear Chairman,

On behalf of the Freshwater Biological Association, we would like to send our congratulations to the East Africa Natural History Society on the impending occasion of its 70th anniversary. Though separated in distance and latitude, this Association has long been conscious of the important role played by the Society in encouraging the study of aquatic biology in East Africa, a region with freshwaters of outstanding interest to naturalists and limnologists. In their contributions to work in this region, present and past members of the staff of this Association have appreciated various studies published in your Journal, and have benefitted from the advice and enthusiasm of your members. We hope that the valuable and unique activity of the Society in East Africa will continue for many more years to come.

Yours sincerely, E.D. Le Cron, Director; G. Fryer,
J.F. Talling, Senior Principal Scientific Officers.

Sehr geehrte Herren !

Zu Ihrem bevorstehenden Jubiläum des 70 jährigen Bestehens Ihrer Gesellschaft wünscht Ihnen die Münchner Entomologische Gesellschaft alles Gute. Möge Ihre Gesellschaft weiterhin wachsen

und gedeihen und wie bisher fortfahren, die Kenntnis der Natur Ostafrikas zu mehren.

Auch hoffen und wünschen wir, dass der langjährige gute Kontakt zwischen unseren beiden Gesellschaften auch in Zukunft erhalten bleiben kann.

In diesem Sinne übermitteln wir zu Ihrem Jubiläum alles Gute !

Mit freundlichen Grüssen, Dr Walter Forster.

Dear Mr Karmali,

We received the news of the impending 70th anniversary of your Society with some delight - delight because of the fact that interest in wildlife and nature continues to thrive.

As an organisation also vitally concerned with the conservation of nature, my Board and its staff join me in congratulating the East Africa Natural History Society on the completion of its first 70 years, and in wishing it well in the future.

We have been privileged in the past to exchange publications with you, and have always considered the association to be a very worthwhile one. I sincerely hope we can continue it.

Yours sincerely, Director, Natal Parks, Game and Fish Preservation Board, Pietermaritzburg.

Monsieur le Président,

A l'occasion du 70e anniversaire de votre Société, le Jardin botanique national de Belgique congratule celle-ci, la félicite de son activité dans le passé et tient à lui dire combien il est heureux de s'associer à tous ceux qui auront à cœur de vous dire l'estime que votre Société s'est acquise dans le monde des naturalistes.

Notre institution forme les vœux les plus vifs pour l'avenir de votre Société et sera heureuse de rester en relation avec elle, dans un commun souci de promouvoir le développement et la diffusion des sciences de la nature.

Veuillez agréer, monsieur le Président, l'expression de mes sentiments le plus distingués.

E. Petit, Director.

THE MATING DECENT FLIGHT OF ALATE TERMITES

I have watched winged termites many times over the years but usually where these were leaving a termitorium or being taken by birds in flight. However, in the early morning of 27th October 1979 at Miotoni, Karen, Kenya I was fortunate enough to witness a mating decent flight of termites to a mating area. The termite species was Odontotermes montanus.

It had rained overnight and was raining again at 06.45 hrs. At 07.00 hrs, the first termites appeared, coming from the west through and over the forest to an area of very closely mown lawn and an area of newly dug flowerbed with many bare patches of soil.

The termites gradually descended to flutter about a metre or so above the ground. Birds were taking these as they passed over the forest.

By 07.15 hrs, thousands of termites were descending in the rain and gradually settling, still fluttering, on the bare soil or the lawn. Wave after wave arrived until 07.45 hrs when the rain and flight ceased. The lawn was grey with a fluttering mass with the insects attempting to shed their wings.

I had now realised that this vast mass of several thousand insects had descended onto a very limited area of not more than 40 by 50 metres yet there were many other areas of the garden which might have been suitable. I checked all round the lawn and flowerbed but could not find any termites. It was now more or less obvious why the termites had chosen this particular site, the termites had shed their wings and were travelling head to tail over the ground. Had they dispersed or landed in longer grass there would have been less chance of couples finding each other. A few pairs had commenced burrowing into the soft soil of the flower bed and by 08.00 hrs there were few winged specimens left on the lawn; shed wings lay everywhere.

The complete absence of birds at this potential bonanza feast rather surprised me but other predators were out and about. Three toads were gobbling up the insects in the flower bed while seven worked the lawn. A toad appeared 'blind' to numbers of insects fluttering around it within inches but would raise itself up, bulge out its eyes and then take two or three hops to seize a termite maybe half a metre away, shooting out a long pink tongue to make the capture.

Other predators were also early on the scene, the large greyish Bengalia flies. I witnessed a pair of these suddenly rise simultaneously to seize a termite flying about a metre above ground. Other flies were capturing the de-alated insects and sucking out

their body juices. Others just sat with distended abdomens digesting their meal.

I can find no reference to this phenomenon of alated termites all alighting in one confined area for the purpose of mass mating.

G.R. Cunningham van Someren, Bird Room,
National Museum, NAIROBI

UNUSUAL AGGREGATIONS OF FISH EAGLES

Large numbers of Fish Eagles, Haliaeetus vocifer, can always be seen on the shores of Lake Malawi. Normally they are observed singly or in pairs, most commonly in regions where large trees exist close to the water's edge. They can also be seen several kilometres from the shore congregating around fishing vessels where they recover fish from the surface. The majority of these fish are small and can be eaten on the wing. Up to 23 birds have been observed scavenging together in this manner, often in competition with Grey-headed Gulls, Larus cirrocephalus, and the White-winged Black Tern, Chlidonias leucoptera. Fish Eagles also gather to scavenge from large numbers of White-necked Cormorants, Phalacrocorax carbo fishing in rafts of up to 3,000 individuals.

Aggregations of Fish Eagles other than for the purpose of feeding have also been observed. On several occasions large groups of Fish Eagles have been seen on the shoreline, washing in the water and sitting in nearby trees. One such group numbering 15 adults and 18 immatures was observed in two trees close to the shoreline within the territory of an established nesting pair, although the nest was not in use at the time. No aggressive interactions were observed, whereas aggression between neighbouring pairs and between pairs and a single intruder are often observed.

- - - * - - -

BREEDING OF IMMATURE WHITE-NECKED CORMORANTS ON BOADZULU ISLAND, LAKE MALAWI

During August and September 1979 a number of immature White-necked Cormorants, Phalacrocorax carbo, were observed breeding and raising young in a colony of about 4,800 birds. The immature bird is wholly white on the breast and abdomen and observations suggest that the moult to adult plumage starts after about one year. Successful breeding was observed in pairs consisting of one adult plumaged bird and one immature and also pairs of immature birds. The majority of immature birds involved showed some degree of adult plumage on the breast and abdomen, although some wholly white birds were recorded. The total number involved was about one per cent

of the population, although this figure would undoubtedly be higher if those one year old birds which had just completed their moult to adult plumage were included. The majority of these birds were recorded on the periphery of the colony and commenced breeding after the first birds to breed had finished and their chicks left the nests.

Any similar instances of birds breeding whilst still immature or partly immature plumages would be of great interest.

K.L.I. Campbell, Biology Dept, University of Exeter,
p.t. Malawi Cormorant Project, Fisheries Training Centre,
Mpwepwe, Private Bag, Mangochi, MALAWI

THE FOREST VEGETATION AT THE HOTEL BAOBAB, UKUNDA

The above hotel is situated on a cliff on the South Coast, Kenya. Behind this hotel is a forest which is not very much modified by human activities apart from the road which passes through it from Mombasa to Lunga Lunga.

On 31st August this year, I had a privilege to accompany members of the Kenya Agricultural Teachers Association (KATA) to the South Coast. Their last place to visit that morning before going to Mombasa was the Hotel Baobab. Because the vegetation was strikingly not as much disturbed as between Ukunda and Mombasa, I decided to note the kind of plants species occurring there. By the time we left I had noted that the forest was the type described as Tropical Moist Forest (I.U.C.N.)*. The trees grew to over 13 metres and had mainly two layers or strata. In the top canopy, dominated by tall trees, was an association of Cussonia, Ficus, Combretum, Cossonia zimmermanii and two species in the genus Ficus did not have either flowers or fruits but the Combretum sp. had winged straw coloured fruits. Other very common trees in this canopy were the Adansonia digitata, the Baobab from which the hotel got its name, Markamia sp and Millettia sp.

In the lower canopy were the shrubs mainly Grewia glandulosa, a bush with four sided fruits which had grey hairs. A scandent bush with opposite glossy leaves, though no flowers, and two fruits from one stalk - follicles, helped me to place it in the family Apocynaceae.

At the same height but at the edge of the forest was occurring very commonly the Trema orientalis. This tree occurs on forest edges right from the coast to highland areas above 1,830 m. Also in open areas at forest edges was growing the tall guinea grass, Panicum maximum.

On the forest floor, there was little litter but a lot of saplings of the forest trees. This meant that the forest was actually regenerating.

REFERENCES

I.U.C.N. : First Draft of a World Conservation Strategy.

Dale, I. & Greenway, P.J. Kenya Trees and Shrubs.

*I.U.C.N. - International Union for the Conservation of Nature and Natural Resources.

P.W. Mumiukha, Lecturer, Egerton College, Njoro, Kenya

SOCIETY LECTURE NOTES

On 10th September 1979 Dr Ken Bock lectured to the Society on the fishes of the coral reef, concentrating on their colouration, schooling habits and economic habits.

The startling colours of coral fishes are due to the effects of two specialised cells - chromatophores containing melanin and/or carotenoids, and iridocytes containing the purine guanine which produces iridescence. Melanins alone produce dark browns or blacks, mixed with carotenoids they give a range of blues and greens; carotenoids alone produce reds, yellows and oranges. The colours and patterns also depend on whether the pigment is widely dispersed or concentrated in one spot in the pigment cells. The degree of dispersion is largely under nervous control though in amphibians it is mainly controlled by hormones.

Colouration in fishes serves the same function as in other animals though, as always, it is important to realise that colour only plays an important part in the lives of animals having receptors able to respond to light of different wavelengths. As 20 to 30 species, many of them congeneric, may be living together in close proximity one important function of colouration in coral fishes is to provide distinctive sign stimuli which play a major role in preventing interspecific matings. Forms with poisonous flesh or venomous spines often have warning colouration and, as among insects, these forms may have harmless mimics. On the other hand, some dangerous forms are among the most cryptic of all fishes, the stonefish being a classic example. Red fishes which out of water do not appear cryptic are usually nocturnal and are most difficult to see when swimming at night.

Dr Bock then went on to discuss schooling. This is an extremely widespread habit among fishes, sometimes occurring throughout the life of the fish but more often being characteristic of either adults or juveniles. Juvenile schooling is generally commoner than adult schooling, about half of all fish species school as juveniles and about a quarter as adults. Schools are called non-

polarised when they are rather loose and 'untidy' and polarised when all individuals are lined up in the same direction, are evenly spaced, move at the same speed and make well synchronised turns. Schooling appears to be an adaptation for life in sub-optimal habitats, especially in open water where there is a patchy food supply. Individual fishes are less likely to be taken by predators due to what is called the 'confusion effect'. The chances of any one individual being taken also decreases as school size increases in much the same way that simultaneous calving by wildebeest reduces the chances of any one calf being taken by hyaenas and other predators.

Dr Bock finally explained why the East African coast is never likely to become a major fishing ground. The world's major fishing grounds are located on continental shelves with relatively smooth sandy or muddy surfaces which permit trawling. The East African Coast lacks a continental shelf free of snags - any attempt to trawl over coral reefs would rip nets to pieces. Nonetheless substantial numbers of fish are caught by tidal stake traps, dema traps and hand lines, providing both high class protein and useful income for the coastal people.

Dr Bock's interesting talk was accompanied by some excellent slides, taken by a number of his friends (he not being a photographer) which clearly illustrated most of the points he discussed.

J.F.R.

DELOSPERMA OEHLERI: AN INTERESTING REDISCOVERY

Mesembryanthemum oehleri was described by Engler in 1909 from a specimen collected by Oehler and Jaeger on 8th January 1907 north of Lamuniane in the Ndassekera Mountains in northern Tanzania. Since then it has not been found again till photographed early this year by Mr Peter Davey on a quartzitic hill at 1,950 m in Narok District. The colour of the petals (really staminodes), which was not recorded by the first collectors and is therefore not stated in the description of this species in the Flora of Tropical East Africa Aizoaceae (1961), is magenta.

J.B.G.

FOR SALE

JOHN HANNING SPEKE, The Journal of the Discovery of the Source of the Nile, 1863, 1st Edition. Shs 1,000.00 or nearest offer. Please contact the Secretary, P.O. Box 44486, NAIROBI

Toyota Landcruiser 1972 MWB Hardtop, well maintained and reliable. Knows the way to the best places in Kenya. Telephone Bishop 557811 (office) 520152 (house).

SOCIETY NOTES

1980 Subscription Renewals fall due on 1st January 1980, but why not get it paid now to save on the financial drain at the beginning of the year. It is with regret that we have to announce that the subscription has finally had to be raised to Shs 70/- p.a., having been Shs 50/- for ten year. A renewal form is enclosed and those who pay by Bankers Orders will be sent new forms shortly.

Gift Tokens The Society is offering Gift Tokens this year, so if you are wondering what to buy your friends this Christmas - stop in at the Society office at the Museum and buy one. Local Full members Shs 70/-, Local Junior Members Shs 10/-, Overseas Full Members Shs 70/-. We hope to see you soon!

NEW! AMAZING! STUPENDOUS !! IMPROPER DAY OUTINGS !

The Gilberts wish to bring to your attention this brand new concept of the Improper Day Outings. The outings will be improper because there will be no notification on the part of the participants and no obligation on the part of the leaders (who will lead strictly from the rear). For Example :

Sunday 5th January 1980 Sasamua Dam. Meet outside the Museum at 8.45 a.m. The Gilberts intend to go to Sasamua Dam anyway and would welcome other members. However, if it rains, or they break their legs, or they go away for a week, they will feel no obligation to lead this trip, so - either phone 48571 beforehand if you don't know the way, or just go to the Museum at the right time, meet whoever else is going and go on together. Or, if none of you know the way, you'll have your picnics, you'll be all set for a day out, you can just go off somewhere else !

This is the idea of the Improper Outings, that it should be a fairly casual arrangement, members deciding that they intend to go to a certain place on a certain day, and that they don't mind sharing it with other people. We all know of a few nice places, the difficulty is finding them the first time. We can all share around the nice places we do know and any little bit of natural historical knowledge and observations. By always meeting at the Museum we can share transport and give directions.

Sasamua Dam is a nice place to spend the day. It is under the Kinangop, we might see a few high altitude birds and plants. There is a little swamp below the dam which might be interesting. If you have a rubber boat you can use it, if you fish you might catch a trout (permits 20/- a day from the water dept. where you pay the bills - Caroline will get a few extra for those who don't get round to it.) So come to Sasamua Dam and have a super time (unless pouring rain or broken legs or better things to do).

The Gilberts themselves would like to go to all sorts of places Turkana, Lamu, Lake Bogoria, Lake Baringo, anywhere where there are

fish, Suswa, Longonot, Hell's Gate, Hot Springs, Ol Donyo Sabuk, Aberdares, Mt Elgon, the other side of Magadi, you name it, they haven't been to it and don't know how to get there, so why doesn't everyone come up with an Improper Outing to continue in this splendid series. No binding obligation to actually go, strictly equality of ignorance between leaders and led, just think of a good place you do know how to get to, fix a date, and meet at the Museum to share cars, company, directions and any scraps of knowledge when/if we get there.

NEW MEMBERS

The following new members have been elected to the Society :

Local Full Members Half Year

Mr M.J. Adams, P.O. Box 42820, NAIROBI
Mr and Mrs Allport, P.O. Box 47040, NAIROBI
Jes C. Boye-Møller, P.O. Box 40412, NAIROBI
Mr P.B. Dean, P.O. Box 47340, NAIROBI
Fr Michael Drohan, Kenyatta College, P.O. Box 43844, NAIROBI
Ms Jamie Fitch, P.O. Box 30518, NAIROBI
Mr T.G. Gregory, P.O. Box 668, MALINDI, Kenya
Mr John J. Kineman, P.O. Box 30518, NAIROBI
Mrs Astrid Kok, M.C.N., P.O. Box 20752, NAIROBI
Ms Nancy Kuenzel, P.O. Box 29185, KABETE, Kenya
Mr James Sorley Laird, P.O. Box 52428, NAIROBI
Ms Lynne Leakey, P.O. Box 24638, NAIROBI
Mr David Mann, Kiamutugu Sec. School, P.O. Box 5, KIANYAGA, Kenya
Mr John Muchiri Maringah, P.O. Box 31052, NAIROBI
Elijah K. Mbogori, St Paul's United Theological College, Private Bag, LIMURU, Kenya
Muriel R. Mizisin, P.O. Box 40433, NAIROBI
Eva Munk, P.O. Box 40412, NAIROBI
Eliud Mutwiri, Wildlife Clubs of Kenya, P.O. Box 40658, NAIROBI
Mr and Mrs M.E. Nicholson, P.O. Box 43963, NAIROBI
Mr William Schmidt, c/o U.N.D.P., P.O. Box 30218, NAIROBI
Mr and Mrs Stevenson, Lake Baringo Lodge, P.O. Box 1375, NAKURU, Kenya
Mrs Katrin Thunberg, c/o SAS, P.O. Box 59750, NAIROBI

Local Full Members Full Year

Dr Eagle, Dept. of Maths, P.O. Box 30197, NAIROBI
Mr Nigel Hartley, P.O. Box 47089, NAIROBI
Mr James J. Hebraro, Dept. of Zoology, P.O. Box 30197, NAIROBI
John and Betty Stelfox, P.O. Box 47146, NAIROBI
Brig and Mrs J.C. Winchester, P.O. Box 15012, NAIROBI
Ms T. Yamamoto, Vet. Research Lab, P.O. KABETE Kenya

Overseas Full Member

Thyshe Prince, 857 Inyo, Chico, California 95926, U.S.A.

SOCIETY FUNCTIONS

Monday 12th November 1979 at 5.30 p.m. in the Museum Hall, Nairobi: Dr F.L. Lambrecht of I.C.I.P.E. will give an illustrated lecture on 'Tsetse Fly Research in the Okavango Swamp, Botswana'.

24th/25th November 1979 Weekend field meeting to Roger Mennell's farm, North Lake Road, Naivasha, to study birds and plants in the area and walk in the hills. All equipment, food and drinking water should be brought. Members wishing to take part in this function should please fill in the enclosed slip and return it to Mrs A.L. Campbell, P.O. Box 14469, Nairobi as soon as possible. Please enclose a stamped addressed envelope.

Sunday 9th December 1979 Second Annual Nairobi Bird Census. For details please see enclosed slip.

Monday 10th December 1979 at 5.30 p.m. in the Museum Hall, Nairobi: Dr Peter Wirtz will give an illustrated lecture on 'The Social Behaviour of Waterbuck'.

Sunday 5th January 1980 Informal day trip to Sasamua Dam. For details please see page 140 of this Bulletin.

Monday 14th January 1980 Lecture. Details later.

18th/19th/20th January 1980 Adventure Trails. The Society has been offered the following special terms for members booking for 2 nights or more at their tented camp between Rumuruti and Maralal: Adults Shs 150/- per person per night, full board, children under 12 Shs 75/- each per night, full board. If you want to take advantage of this offer to visit a very interesting area, please fill in the enclosed slip and return it to Mrs A.L. Campbell, P.O. Box 14469, Nairobi, with a stamped addressed envelope. Please also include a crossed cheque with payment in full made out to 'Adventure Trails'. The accomodation at this camp is limited, so please send your booking early.

Sunday 10th February 1980 Day Trip to the Harries Farm, Thika. Details later.

Monday 11th February 1980 at 5.3- p.m. in the Museum Hall, Nairobi: Miss Judith Rudnai will give an illustrated lecture on 'Snakes for Beginners'.

Monday 10th March 1980 ANNUAL GENERAL MEETING

THE EAST AFRICA NATURAL HISTORY SOCIETY

Chairman: J. S. Karmali

Vice-Chairman: Dr. J. O. Kokwaro

Joint Editors, Jl E. Africa nat. Hist. Soc. Nat. Mus., Mrs. J. Hayes, M. Gilbert, Dr. A. Hill.

Secretary/Treasurer: Miss D. Angwin

Asst. Secretary/Treasurer: Mrs E. B. Angwin

Hon. Librarian: Dr J. O. Kokwaro

Executive Committee (in addition to the above): G. C. Backhurst (*Ringling Organizer*), Mrs A. L. Campbell, N. arap Chumo, M.P. Clifton (*Editor EANHS Bulletin*), Dr. J. Gerhart, Dr A. Hill, Dr F. Owino, Dr D. J. Pearson.

Co-opted Members: Mts H. A. Britton (*Nest Record Scheme Organizer*), Dr S. Cobb, Dr A. W. Diamond, Dr. M. Litterick, J. Maikweki, Mrs F. Ng'weno, J. F. Reynolds.

Journal Editorial Sub-Committee Mrs J. Hayes, M. Gilbert, Miss D. Angwin, M.P. Clifton, Dr. A. Hill, Dr D. J. Pearson, J. F. Reynolds,

Ornithological Sub-Committee Dr D. J. Pearson, D. A. Turner, G. C. Backhurst, Mrs H. A. Britton, P. L. Britton, Dr A. W. Diamond, Dr J. Gerhart, B. S. Meadows, J. F. Reynolds, D. K. Richards, A. D. Forbes—Watson, C. Mann (London), Dr M. Carswell (Kampala), Dr K. Howell (Dar es Salaam).

Joint Library Sub-Committee (Society representatives) Dr J. O. Kokwaro, M.P. Clifton.

Functions Sub-Committee Mrs A. L. Campbell, Mrs E. B. Angwin, M. Gilbert.

MEMBERSHIP

This offers you free entry to the National Museum, Nairobi; free lectures, films, slide shows or discussions every month in Nairobi; field trips and camps led by experienced guides; free use of the Joint Society-National Museum Library (postal borrowing is also possible); reciprocal arrangements with the Uganda Society's Library in the Uganda Museum, Kampala; family participation: wives and children of members may attend most Society functions; one copy of the *EANHS Bulletin* every two months; a copy of each *Journal* published during your period of membership; the Society controls the ringing of birds in East Africa and welcomes new ringers and runs an active Nest Record Scheme; activities such as plant mapping and game counting are undertaken on a group basis. Membership rates are given at the foot of this page.

JOURNAL

The Society publishes *The Journal of the East Africa Natural History Society and National Museum*. Each issue consists usually of one paper, however, sometimes two or more short papers may be combined to form one number. The aim of this method of presentation is to ensure prompt publication of scientific information; a title page is issued at the end of each year so that the year's papers may be bound together. Contributions, which should be typed in double spacing on one side of the paper, with wide margins, should be sent to the Secretary, Box 44486, Nairobi, Kenya. Authors receive twenty-five reprints of their article free, provided that these are ordered at the time the proofs are returned.

E.A.N.H.S. BULLETIN

This is a duplicated magazine issued six times a year, which exists for the rapid publication of short notes, articles, letters and reviews. Contributions, which may be written in clear handwriting or typed, should be sent to The Editor (*EANHS Bulletin*), Box 44486, Nairobi, Kenya. Line drawings will be considered if they add to the value of the article. Photographs cannot be published.

SCOPUS

The Ornithological Sub Committee publishes this quarterly bird magazine. Cost: EANHS members KShs. 50/- p.a., non-EANHS members KShs. 75/- p.a. All correspondence to D. A. Turner, Box 48019, Nairobi, Kenya.

MEMBERSHIP SUBSCRIPTION RATES

Life	One payment: Kshs. 750/-
Institutional (schools, libraries)	annual payment: Kshs. 50/-
Full Local	annual payment: Kshs. 50/-
Overseas	" " Kshs. 70/-
Junior (full-time student, no Journal supplied)	annual payment: Kshs. 10/-

Subscriptions are due 1st January. From 1st July you may join for Kshs. 35/- and receive publications from that date. Application forms for membership are obtainable from the Secretary, Box 44486, Nairobi.



NOTES FOR CONTRIBUTORS

Members of the Society (and non-members) are asked to follow these simple instructions when writing articles or letters for submission to the *Bulletin*. The *Bulletin* is presented six times a year in a duplicated format: the paper size is 20.5×23 cm (10×8 inches), line drawings can be reproduced but the area should not be more than 17.5×23 cm. Lettering on figures should preferably be in 'Letraset', neatly done in Indian Ink or left blank: if the last method is followed, the lettering should be indicated on an overlaying sheet and should not be done on the figure. Figures should be prepared on good quality white writing paper and not on Bristol Board or other thick material. Whenever plants or animals are mentioned the scientific name should also be given but not in parenthesis. Trinomials should not be used unless there is good reason to do so. Author's names of species are not required.

Contributions may be typed (preferably) or written clearly and should be sent to: M. P. Clifton, Box 44486, Nairobi, Kenya. Receipt of contributions will be acknowledged.